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Journal of Advanced Research in Fluid Mechanics and Thermal Sciences
Volume 53, Issue 2, 1 January 2019, Pages 165-174

Experimental and numerical study on the aerodynamics and stability characteristics of a canard aircraft (Article)

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Abstract

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Modern day fighter aircrafts are mostly canard configured because of its advantages over conventional configuration. The primary objective of this work is to investigate the low speed aerodynamic and stability characteristics of a canard configured aircraft. Using CFD -ANSYS Fluent package, numerical flow simulations were carried out for a typical canard configuration such as Burt Rutan's VariEze, a composite homebuilt canard aircraft. To validate the numerical results, wind tunnel testing of a scaled model was carried out. Finally the effect of horizontal location of canard on the aerodynamics and stability characteristics was studied. © 2019 Penerbit Akademia Baru.

SciVal Topic Prominence

Topic: Wings | Angle of attack | wing configuration

Prominence percentile: 79.567

Author keywords

Aerodynamics Canard CFD Experimental Longitudinal static stability

Funding details

Funding sponsor	Funding number	Acronym
International Islamic University Malaysia		

Funding text

The authors would like to acknowledge the Research Management Centre, International Islamic University Malaysia for support of this work.

ISSN: 22897879
Source Type: Journal
Original language: English

Document Type: Article
Publisher: Penerbit Akademia Baru

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